

IN THE CLAIMS

1-20. (Cancelled)

21. (Currently Amended) An apparatus comprising:

a first logic circuitry to generate a first signal corresponding to one or more sensed temperature values; and

a second logic circuitry to generate a second signal corresponding to one or more voltage values; and

a third logic circuitry to generate a third signal corresponding to a leakage power value based on the first signal and the second signal, wherein the one or more voltage values are to comprise a current value of a threshold voltage and a current value of a supply voltage.

22. (Previously Presented) The apparatus of claim 21, further comprising a fourth logic to adjust power consumption of one or more components of a computing system based on the third signal.

23. (Previously Presented) The apparatus of claim 21, wherein the one or more voltage values comprise a current value of a threshold voltage and a current value of a supply voltage.

24. (Previously Presented) The apparatus of claim 21, further comprising a fourth logic to generate a fourth signal corresponding to a base leakage power value, wherein the third logic generates the third signal based on the first signal, the second signal, and the fourth signal.

25. (Previously Presented) The apparatus of claim 21, wherein the leakage power value corresponds to leakage power consumed by a device to which the sensed temperature values and the one or more voltage values correspond.

26. (Previously Presented) The apparatus of claim 21, further comprising a storage unit to store a plurality of temperature values, wherein the first logic generates the first signal based on one of the plurality of stored temperature values.

27. (Previously Presented) The apparatus of claim 21, further comprising a storage unit to store a plurality of voltage values, wherein the second logic generates the second signal based on one of the plurality of stored voltage values.
28. (Previously Presented) The apparatus of claim 21, further comprising a storage unit to store a plurality of leakage power values, wherein the plurality of leakage power values are indexed by the temperature and the voltage.
29. (Previously Presented) The apparatus of claim 21, further comprising one or more temperature sensors to sense the temperature values.
30. (Previously Presented) The apparatus of claim 21, wherein the third logic comprises a multiplier to multiply the first and second signals to provide the third signal.
31. (Previously Presented) The apparatus of claim 21, further comprising one or more processor cores, wherein at least one of the one or more processor cores comprises one or more of the first logic, the second logic, or the third logic.
32. (Previously Presented) The apparatus of claim 21, further comprising one or more processor cores, wherein at least one of the one or more processor cores, the first logic, the second logic, and the third logic are on a same die.
33. (Currently Amended) A method comprising:
determining a temperature scaling value corresponding to one or more temperature values sensed from a device;
determining a voltage scaling value based on one or more voltage values corresponding to the device; and
scaling a reference leakage power value of the device based on the temperature scaling value and the voltage scaling value to generate a signal corresponding to a leakage power of the device, wherein the one or more voltage values are to comprise a current value of a threshold voltage and a current value of a supply voltage.

34. (Previously Presented) The method of claim 33, wherein the sensing and scaling are performed during run-time of the device.

35. (Previously Presented) The method of claim 33, wherein determining the temperature scaling value comprises accessing a storage unit.

36. (Previously Presented) The method of claim 33, wherein determining the voltage scaling value comprises accessing a storage unit.

37. (Previously Presented) The method of claim 33, wherein scaling the reference leakage power value comprises multiplying the reference leakage power value by the temperature and voltage scaling values.

38. (Previously Presented) The method of claim 33, further comprising determining the reference leakage power value during test or design of the device.

39. (Currently Amended) A computing system comprising:

a memory to store a plurality of bits representing a plurality of scaling factors;

a first logic having one or more components to perform one or more computing operations; and

a second logic to scale a base leakage power value corresponding to at least one of the one or more components based, at least in part, on sensed temperature variations and one or more of the plurality of stored scaling factors, wherein at least one of the plurality of stored scaling factors corresponds to a current value of a threshold voltage and a current value of a supply voltage.

40. (Previously Presented) The computing system of claim 39, further comprising a third logic to adjust power consumption of at least one of the one or more components based on the scaled leakage power value.

41. (Previously Presented) The computing system of claim 39, wherein at least one of the plurality of stored scaling factors corresponds to a voltage scaling value.
42. (Previously Presented) The computing system of claim 41, wherein the voltage scaling value corresponds to one or more voltage values.
43. (Currently Amended) The computing system of claim 42, wherein the one or more voltage values comprise ~~[[a]]~~ the current value of a threshold voltage and ~~[[a]]~~ the current value of a supply voltage.
44. (Previously Presented) The computing system of claim 39, wherein the second logic comprises a multiplier to multiply a first signal corresponding to a temperature scaling value, a second signal corresponding to a voltage scaling value, and a third signal corresponding to the base leakage power value.
45. (Previously Presented) The computing system of claim 39, wherein the plurality of the stored scaling factors comprises a plurality of temperature scaling values and a plurality of voltage scaling values.
46. (Previously Presented) The computing system of claim 39, wherein the memory comprises a read-only memory.
47. (Currently Amended) The computing system of claim 39, further comprising one or more processor cores, wherein at least one of the one or more processor cores comprises one or more of the first logic, the second logic, or the memory ~~third logic~~.
48. (Currently Amended) The computing system of claim 39, further comprising one or more processor cores, wherein at least one of the one or more processor cores, the first logic, the second logic, and the memory ~~third logic~~ are on a same die.
49. (Previously Presented) The computing system of claim 39, wherein the one or more computing operations comprise one or more of data processing, data storage, and data communication.

50. (Previously Presented) The computing system of claim 39, further comprising an audio device.

51. (Previously Presented) The computing system of claim 39, further comprising one or more sensors to sense the temperature variations.